

blood. One must also accept the cost and risk of the workup when occult blood is found in stool specimens, to be able to detect colorectal cancer at an earlier stage and improve the prognosis. I favor the American Cancer Society's recommendations for the present instead of awaiting the results of clinical trials.

The International Workgroup on Colon Rectal Cancer has recommended that fecal occult blood testing be done annually beginning between the ages of 40 and 50 years.

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Prevention of Hepatitis B Virus Infections From Mothers to Infants

WHILE RELATIVELY UNCOMMON in the United States, chronic infection with hepatitis B virus (HBV) may be found in up to 15% of the population in many developing countries. A significant proportion of these infections occurs as a result of mother-to-infant transmission. Persons chronically infected with HBV, especially those infected at birth or early in life, are at increased risk of subsequent liver disease such as chronically active hepatitis, cirrhosis and primary hepatocellular carcinoma.

In California alone (an area of low incidence), an estimated 3,000 to 5,000 women who are positive for hepatitis B surface antigen (HBsAg) give birth each year. Most mother-to-infant infections seem to occur at the time of delivery (connatal) or shortly thereafter, rather than transplacentally. The probability of exposed neonates becoming HBV carriers can be greatly reduced by administering hepatitis B immune globulin. The Public Health Service Immunization Practices Advisory Committee (ACIP) recommended in 1981 that all infants born to HBsAg-positive mothers should be given 0.5 ml of hepatitis B immune globulin immediately after birth and at three and six months. The Committee on Infectious Diseases of the American Academy of Pediatrics has made a similar recommendation.

In June 1982 the ACIP recommended that infants born to HBV-infected mothers should also receive hepatitis B virus vaccine, in addition to the three doses of hepatitis B immune globulin, inasmuch as these infants may continue to be at risk of infection from their mothers and other possible carriers in the household. The optimal timing for giving the vaccine in conjunction with hepatitis B immune globulin has not yet been established. Until additional data are available, however, the ACIP has recommended that immunization with hepatitis B virus vaccine should be started at three months of age, or shortly thereafter.

To carry out appropriate prophylactic measures in the delivery room, it is necessary to know before de-

livery whether the mother has the hepatitis B surface antigen. The HBsAg carrier rate in the US population ranges from 0.1% to 0.5%. Much higher HBsAg carrier rates are found in persons from hyperendemic hepatitis B virus areas of the world, such as Asia, Sub-Saharan Africa and the Pacific Islands. Persons of Asian ancestry born in the United States appear to maintain relatively high HBsAg carrier rates. There are thus clear indications for doing routine prenatal HBsAg testing of women who are members of groups with HBsAg carrier rates of 1% or more. In addition to the ethnic minorities already mentioned, these groups include women who have acute or chronic liver disease, frequent occupational exposure to blood, household or sexual contacts of known HBsAg carriers and women with a history of injecting illicit drugs.

The prevention or modification of hepatitis B virus infections in infants deserves high priority as there is no present cure or treatment for the chronic HBsAg carrier state once it is established. Additionally, failure to identify pregnant carriers in the known high-risk groups can expose health care providers to an increased risk of nosocomial hepatitis B and to possible legal action on behalf of those infants in whom the chronic carrier state might develop because of the failure to provide any prophylaxis.

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Pesticides as a Public Health Concern in California

CALIFORNIA LEADS the nation both in the volume of pesticides used and in the number of pesticide-related illnesses. In 1981 the statewide use was 218 million kg (480 million lbs) of pesticides, 78% of which was for agriculture, the remainder for home, garden, structural and industrial use. Last year, 1,388 illnesses related to occupational exposure to pesticides were documented in the state, 48% of which involved systemic symptoms, the rest being skin and eye conditions. This information is based on physicians' reports of pesticide illness and investigations by agricultural and public health agencies. The State Health and Safety Code requires that any physician "who knows, or has reasonable cause to believe, that a patient is suffering from pesticide-related illness" must report the case to the local health officer within 24 hours; also, in work-related illness, a "Physician's First Report" of illness must be filed within seven days. Failure to comply with the reporting requirement renders the physician liable for a civil penalty of \$250.

The high-risk occupations for systemic pesticide illness are mixing, loading and applying of pesticides,